

REMARKS

Claims 1-28 are pending in the present application. Claims 9 and 23 have been indicated as including allowable subject matter. Claims 1-8, 10-22, and 24-28 stand rejected. Applicants have carefully reviewed the cited art as well as the comments provided in the Office Action dated October 31, 2007 (hereinafter "Office Action"), and respectfully submits that the pending claims are allowable over the cited art. Claim 1 and 15 are the independent claims. None of the claims have been amended.

The Office Action rejected Claims 1-3 and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over Ellinas, U.S. Patent No. 6,760,302. Applicants respectfully traverse this rejection.

The disclosure of Ellinas is completely different from the invention as claimed. Although the Examiner concedes that Ellinas is different from the invention as claimed, the differences go far beyond the difference conceded by the Examiner.

Claim 1 recites, in part:

the plural nodes of the pre-configured cycle being configured to protect at least one path segment, where the path segment includes at least two intersecting nodes within the pre-configured cycle and at least one intermediate node in a path that includes the two intersecting nodes and straddles the pre-configured cycle, the intermediate node not being a part of the pre-configured cycle and the pre-configured cycle providing two restoration paths to protect against a failure of a span straddling the pre-configured cycle.

The Examiner cited cycle 331 in Fig. 3 of Ellinas as allegedly providing two paths for failure of straddling path 333, so that node 309 can communicate with node 311 through node 313 or 317. This statement of the Examiner is incorrect.

To understand why this statement is incorrect, it is instructive to review Fig. 2(a) of the present application. In Fig. 2(a), nodes 1 and 2 are intersecting nodes, and nodes 3 and 4 are intermediate nodes. If any of the straddling spans 1-3, 3-4 or 4-2 fail, the protection cycle

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provides a protection path along both sides of the cycle. Attention is directed to paragraph 42 of the published application for additional detailed explanation of Fig. 2(a).

On the other hand, referring to cycle 331 of Ellinas' Fig. 3, it is evident that this cycle cannot provide any protection path at all for flows from node 309 to 311. In fact, cycle 331 does not even communicate at all with node 311. To create a protection path from node 309 to 311 requires using one or more of the simple cycles 323, 325, 327 or 329. Therefore, the protection cycle 331 cannot provide any protection paths for communication between node 309 and node 311.

It is clear that if a path does not communicate with a node, it cannot provide a protection path for that node.

Furthermore, in general, because cycle 331 is uni-directional, if there was a flow similar to the configuration of Fig. 2(a) of the present application with a flow from a source S to destination D through intersecting nodes 1 and 2, cycle 331 could only provide one protection path for a failure of a straddling span. That is, with a uni-directional cycle, the flow from S to D can only go around the cycle along one side and not the other.

These differences demonstrate that Ellinas is completely different from the present invention in more ways than conceded in the Office Action.

Another way to look at the distinction over Ellinas is to observe that Ellinas requires concatenation of simple cycles to provide protection paths. The simple cycles provide building blocks so that when a failure occurs they may be joined together into a restoration path by breaking the connections in the protection cycles and joining them together. Hence, the cycle groups of Ellinas are not preconfigured and thus Ellinas does not disclose a pre-configured cycle of spare capacity as claimed in Claim 1.

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Importantly, the exterior cycle 331 in Fig. 3 of Ellinas is incomplete and non-functional in itself without the addition of the simple cycles 323, 325, etc. Hence, the exterior cycle 331 cannot provide two restoration paths to protect against a failure of a span straddling the pre-configured cycle and one restoration path for a failure of a span on the pre-configured cycle as claimed in Claim 1.

The distinctions of the present invention over Ellinas are clear. Nothing in Ellinas remotely suggests the approach taken by the applicants. In fact, Ellinas teaches a completely opposite and more complicated approach to protection against node failure.

Claim 1 is therefore allowable, and likewise Claim 15 based on the same argument. The dependent claims are likewise allowable for the same arguments as independent Claims 1 and 15, and for the additional subject matter they recite.

CONCLUSION

Reconsideration and withdrawal of the rejections, and allowance of the claims, is respectfully requested. Should the Examiner identify any issues needing resolution prior to allowance, the Examiner is invited to contact the undersigned counsel by telephone.

Respectfully submitted,

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